

Memorandum of Understanding
between NASA Headquarters and
MSFC
For
NASA Principal Center for Review of
Clean Air Regulations

By
Salvatore V. Caruso
Marceia A. Clark-Ingram
Chemistry Group
Materials, Processes & Manufacturing Department
Marshall Space Flight Center, Alabama

Background

- NASA HDQ (Code JE and Code M) has asked MSFC to serve as principal center for review of Clean Air Act (CAA) regulations
 - Hazardous Air Pollutants (HAPs)
 - Ozone Depleting Chemicals (ODCs)
 - Volatile Organic Compounds (VOCs)
- Materials and processes utilized in the manufacture of NASA's programmatic hardware contain HAPs, VOCs and ODC.

Team

(NOET)

- **Established at MSFC in 1992 to support /facilitate activities related to achieving environmental compliance in the manufacture of NASA program hardware**
 - **Design**
 - **Development**
 - **Test**
 - **Use**
 - **Production**

NOET (Cont'd)

- Revision of current NOET charter underway.
- Emphasis of revised charter
 - Principal Center for review of CAA regulations
 - Biennial conferences on aerospace, materials replacement technology
 - Flight performance of alternative materials and processes
 - Acquisition Pollution Prevention Team (AP²) support
 - NOET website upgrades

Purpose of Principal Center

- **Provide centralized support to NASA/HDQ Code JE for the management and leadership of NASA's CAA regulation review process**
- **Identify potential impact of proposed CAA regulations on NASA program hardware and supporting facilities**
 - **The EPA is required by CAA to promulgate 174 National Emission Standards for Hazardous Air Pollutants (NESHAPs)**
 - **Approximately 30 NESHAPs could potentially impact NASA program hardware and supporting facilities**

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Impact NASA program hardware and supporting facilities⁵

Purpose of MOA

- **Establishes MSFC– Materials, Processes & Manufacturing Department (MP&M) as Principal Center for review and comment on EPA proposed CAA rulemaking.**
- **Formalizes the historical working relationship between Headquarters (Code JE & Code M), NOET and MP&M on review of CAA regulations.**
- **Provides funding mechanism from Code JE to support the CAA review effort.**

Corporate Knowledge at MSFC

- **1991** : MSFC-MP&M began reviewing ODC usage
- **1992**: NOET chartered with emphasis on design, test, production and use of program hardware
- **1992-Present**: Materials replacement research in MSFC-MP&M's Productivity Enhancement Complex
- **1993-1996**: MSFC-MP&M & NOET teamed with HQ (Code JE & Code M), EPA, Shuttle Contractors on development of Aerospace NESHAP
- **1993 -1999**: MSFC-MP&M & NOET lead the

Corporate Knowledge at MSFC (cont'd)

- **1994, 1996, 1998:** NOET & MSFC-MP&M executed conferences on Aerospace Environmental Technology
- **1995:** NOET & MSFC-MP&M represented NASA at international United Nations Environmental Programme (UNEP) meeting on use of TCA in program hardware
- **1995-Present:** MSFC-MP&M & NOET conduct in-house materials replacement compatibility testing for Liquid Oxygen (LOX) environments
- **1996-Present:** Collaboration between NOET, MSFC-MP&M, HDQ (Code JE & Code M), Shuttle

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Shuttle Replacement Technology Team (SRT²)

- **The SRT2 began at MSFC in 1995. It is chartered to perform following**
 - ➔ **Focus on obsolescence, environmental , material issues among the major space shuttle production elements**
 - ➔ **Share development and test data in real time thereby reducing development schedules and costs**

MSFC –MP&M & NOET

Responsibilities

- Identify potential impact of proposed CAA regulations to NASA's program and supporting facilities
- Establish and maintain working relationships with the EPA
- Establish points of contact at other NASA Centers to represent programmatic interests
- Review proposed CAA regulations from EPA
- Develop requirements for data calls
- Collect and consolidate data responses from NASA team representatives
- ~~Develop draft response to EPA and deliver to Code~~ ^{Mar 2010} ~~Develop draft response to EPA and deliver to Code~~ ^{Mar 2010} IF

MSFC-MPM & NOET Deliverables

- MSFC-MPM & NOET will provide the following deliverables to Code JE
 - Annual Task plans containing project objectives, deliverables & schedules for CAA regulatory support activities
 - Quarterly status review of current & planned CAA regulatory activities
 - Data calls for comments on proposed CAA regulations
 - Consolidated NASA comments resulting from responses to data calls

HQ Code JE Responsibilities

- **Issue data calls to NASA Centers & supporting facilities**
- **Submit final comments to EPA on proposed rulings**
- **Review & approve Annual Task plan from Principal Center (MSFC)**
- **Provide funding to MSFC for contractor support**
- **Evaluate requirements for continuation of**

activities

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HQ Code M Responsibilities

- **Provide Institutional Program Office support to MSFC for civil service staffing**
- **Evaluate requirements for continuation of activities**

Principal Points of Contact

- **NASA HDQ – Code JE**
 - **Ms. Olga Dominguez**
 - **Ms. Maria Bayon**
- **NASA HDQ – Code M**
 - **Mr. Sam Malone**
- **MSFC MP&M, NOET**
 - **Dr. Ann Whitaker**
 - **Mr. Salvatore V. Caruso**

Status of Agreement

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